DESIGN AND IMPLEMENTATION OF “CHOMICAL”: A TOWER DEFENSE GAME APPLYING THE SIMULATION OF CHEMICAL EXPERIMENTS USING LIBGDX FRAMEWORK

Student Name : Annisa U Istighotsah  
NRP : 5109 100 201  
Major of Department : Informatics Engineering, FTIf-ITS  
Advisor I : Imam Kuswardayan, S.Kom, M,T.  
Advisor II : Dwi Sunaryono, S.Kom., M.Kom.

ABSTRACT

Simulation game is a game that implements a real activity in a computer game. This final project is applying the concept of simulation as a learning media for chemistry subject. Target users are high school students. The gameplay is that the player must perform a chemical experiment for making bullets. The bullet is used to attack enemies in the tower defense battle. By defeating enemies, a player can find new chemicals for more experiments.

The final project is developed with libGDX framework. The development used Java as its programming language and Eclipse as its development environment.

A testing is conducted to determine whether the application is run as it is expected. Through functional testing, the results obtained show that the application can run properly. Testing on the respondents indicated that the game was well received and the game is helpful for player who wants to learn various chemical experiments.

Keywords: Chemical Experiment, libGDX, Tower Defense.